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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/724,366	12/01/2003	Iwao Saikatsu	032126	8101

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WESTERMAN, HATTORI, DANIELS & ADRIAN, LLP
1250 CONNECTICUT AVENUE, NW
SUITE 700
WASHINGTON, DC 20036

EXAMINER

RONESI, VICKEY M

ART UNIT PAPER NUMBER

1714

DATE MAILED: 01/27/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/724,366

Applicant(s)

SAIKATSU ET AL.

Examiner

Vickey Ronesi

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
 - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
 - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 November 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2 and 4-7 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2 and 4-7 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

1. All outstanding rejections are withdrawn in light of applicant's amendment filed 11/3/2005.
2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior office action.
3. New grounds of rejection, in response to applicant's deletion of all abrasive particles other than silicon carbide, are set forth below. Thus, *a 2nd non-final Office action is set forth as follows.*

Claim Objections

4. Claim 2 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. In particular, silicon carbide has a Mohs hardness of 9 and therefore the scope of claim 2 is broader than claim 1 since silicon carbide does not have a Mohs hardness of "6 or more," only 9. See the attached *Hawley's Condensed Chemical Dictionary* excerpt as evidence for the Mohs hardness of silicon carbide.

Claim Rejections - 35 USC § 103

5. Claims 1, 2, and 4-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Brewer (US 5,856,278) in view of Hiles (US 4,049,396).

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Brewer discloses a friction material comprising 5-80 vol. % abrasive such as alumina having a particle size of 1-10 microns (col. 1, lines 46-47); 5-40 vol. % cured organic resin/rubber (e.g., nitrile rubber) binder; and a fibrous base (col. 1, lines 37-50). Note Examples 1 and 2 in col. 2 where solvated NBR (i.e., the unvulcanized rubber of the binder) is present in an amount of 15 vol. %. While the binder is cured, it is not vulcanized and therefore the solvated NBR reads on the instant claims. Although Brewer discloses the unvulcanized rubber as part of the binder component and the presently claimed invention has the unvulcanized rubber as part of the filler (C) component, it is the examiner's position that once the ingredients are mixed together to form the friction material, the distinction between the components becomes unnecessary since the final product is the same regardless of the description of the components before mixing.

Brewer fails to disclose abrasive particles other than alumina or rubber other than NBR.

With respect to silicon carbide abrasive particles, Hiles discloses a friction or abrasive composition for brake pads (like Brewer) (col. 7, line 15) which comprises abrasive particles such as aluminum oxide and silicon carbide (col. 8, lines 23-27).

In view of Hiles's recognition that aluminum oxide and silicon carbide are equivalent and interchangeable in friction or abrasive compositions, it would have been obvious to one of ordinary skill in the art to substitute silicon carbide with aluminum oxide and thereby arrive at the presently claimed invention. Case law holds that the mere substitution of an equivalent (something equal in value or meaning, as taught by analogous prior art) is not an act of invention; where equivalency is known to the prior art, the substitution of one equivalent for another is not patentable. See *In re Ruff* 118 USPQ 343 (CCPA 1958).

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With respect to other types of rubber (i.e., claim 4), while Brewer exemplifies NBR and nitrile rubbers, Brewer is clearly open to other suitable conventional rubbers (col. 3, lines 13-14), including those presently claimed. Therefore, it would have been obvious to one of ordinary skill in the art to utilize other conventional rubbers with an expectation of comparable results, absent evidence to the contrary, and thereby arrive at present claim 4.

Response to Arguments

6. Applicant's arguments with respect to the claims have been considered but are moot in view of the new ground(s) of rejection.

Contact Information

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Vickey Ronesi whose telephone number is (571) 272-2701. The examiner can normally be reached on Monday - Friday, 8:30 a.m. - 5:00 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan can be reached on (571) 272-1119. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR

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system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

1/19/2006

vr



Vasu Jagannathan
VASU JAGANNATHAN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 1700